

REMARKS

Claims 1, 2, 4-6, 9-10, 12-24, 26-37 are pending in the application.

Claims 1, 2, 4-6, 9-10, 12-24, 26-37 stand improperly rejected.

Rejection under 35 U.S.C. § 103(a)

Claim 1-10 and 36 are improperly rejected as being unpatentable over Stein et al. (U.S. Patent Application No. 2003/0008663) in view of Kennedy Jr. (U.S. Patent No. 6,952,158).

Claim 1 recites *inter alia*:

“determining if one of the plural signals has passed through the first repeater is based in part on a difference between the times of arrival of two of the plural signals at the geolocation system.”

The Office acknowledges that “Stein fails to clearly teach [the] step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system”.

The Office improperly relies upon Kennedy to provide the missing teaching. The Office states: “Kennedy teaches [the] step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system” and cites Col. 1 ll. 16-30.

Kennedy, in the portion relied upon by the Office, states:

“Determining a time difference of arrival between each pair of identified reference signals, determining a geographic area in which the mobile appliance is located based on the identity of the identified reference signals, and determining a geolocation of the mobile appliance based on the determined time differences of arrival of the identified reference signals by conventional TODAY methods.”[emphasis added]

None of the “determining” steps teaches figuring out whether one of the signals has passed through a repeater.

However, the Office has failed to provide a teaching that addresses the recited limitation. The claim clearly requires determining whether one of the plural received signals has passed through a repeater based on a time difference of arrival of the plural signals. The “determining” step is directed to determining if a signal has passed through a repeater. The Office seems to confuse determining a geolocation using plural signals, which Kennedy expressly discloses, with determining if a repeater was used on one of the plural signals.

Stein does not disclose the “determining” step, as admitted by the Office and Kennedy does not disclose the “determining” step as discussed above. Therefore, a *prima facie* case of obviousness has not been established since the references alone or in combination fail to disclose the limitation of “determining if one of the plural signals has passed through the first repeater is based in part on a difference between the times of arrival of two of the plural signals at the geolocation system.”

The rejection of Claim 1 and similarly the rejection of Claim 36 must be withdrawn. Likewise, the rejection of dependent Claims 2, 4-6, 9-10 are improper as they depend properly from Claim 10 and are thus patentable irrespective of any additional limitations recited therein.

Claims 12, 14-17, 24 and 26-29 are improperly rejected as being unpatentable over Stein et al. (U.S. Patent Application No. 2003/0008663) in view of Kennedy et al. (U.S. Patent Application No. 2004/0043775).

The Office states that Stein teaches “the geolocation sensors monitor (identification code) the tether (Section 0024) between the at least one repeater and an antenna feed interface of the mobile appliance’s signal (Section 0007-0009 and 0039-0040).

Applicant notes that Stein is completely silent regarding as to where the signals propagated via the tether are monitored. Claim 12 recites *inter alia*:

“wherein the geolocation sensors monitor the tether between the at least one repeater and an antenna feed interface for the mobile appliance’s signal.”

Absent a teaching for this claim limitation a *prima facie* case of obviousness cannot be made. Stein, as relied upon by the Office, does not teach the limitation, nor does Kennedy. Therefore, the rejection of Claim 12 must be withdrawn.

Likewise, the rejection of Claims 14-17, is improper as they depend properly from Claim 12.

Claim 26 recites *inter alia*:

“relaying from the at least one repeater station information regarding the channel of the mobile appliance’s signal to a geolocation system and using the information to detect the mobile appliance’s signal and calculate the mobile appliance’s location.”

The Office improperly states that Stein “discloses relaying from the at least one repeater station information regarding the channel of the mobile appliance’s signal to a geolocation system” and cites paragraphs [0007-0009 and 0116-0117] as a basis.

Stein, however, discloses transmitting the identification code on a different channel, not the repeated signal (see [0116] and [0117]). However, there is no disclosure of the repeater sending the channel over which it received the mobile appliance’s signal to the geolocation system as required in the claim.

Kennedy also provides no support for the repeater transmitting the mobile’s channel. Therefore the rejection of Claim 26 is improper and must be withdrawn.

Likewise, the rejection of Claims 27-29, is improper as Claims 27-29 depend properly from Claim 26.

Claims 13 and 18-21 are rejected as being unpatentable over Stein et al. (U.S. Patent No. 2003/0008663) in view of Kennedy et al. (U.S. Patent Application No. 2004/0043775) and further in view of Tekinay (U.S. Patent Publication No. 2001/0027110).

Claim 13 recites inter alia:

“adjusting the time of arrival of the mobile appliances signal based on the determination if the mobile appliance is being served by the one of the at least one repeaters.”[emphasis added]

The Office acknowledges that “Stein et al. fails to teach a mobile positioning center and adjusting the time of arrival of the mobiles appliance signal.” and “Kennedy fails to teach adjusting the time of arrival of the mobile appliance signal”. The Office then improperly relies upon Tekinay to provide such a teaching.

Tekinay, in the section relied upon by the Office, states:

“In accordance with another feature of the invention, the accuracy of a determined time-of-arrival is improved by adjusting the determined time-of-arrival to reduce the inaccuracies due to the effects of scattering on the incoming signal”[emphasis added]

As such Tekinay only provides a teaching of adjusting time of arrival based scattering, not based on a determination that the signal passed through a repeater as required in the claim.

Therefore, as Stein, Kennedy and Tekinay, alone or in combination fail to disclose adjusting time of arrival (TOA) based on the determination of the use of a repeater, a *prima facie* case of obviousness cannot be made. The rejection is improper and must be withdrawn.

Likewise, the rejection of Claims 18-21, is improper as they depend properly from Claim 13.

Claims 22-23 are improperly rejected as being unpatentable over Stein et al. in view Lindqvist.

Claim 23 has been amended into independent form including all the limitations of now cancelled Claim 22.

Claim 23 recites *inter alia*:

“detecting signals from the target mobile appliance on another of the at least one repeater station’s communication tether”

Stein is silent with respect to using more than one repeater in locating the mobile. The Office has also failed to provide any evidence in Stein that would support such a

conclusion. Therefore the Office has failed in its burden in establishing a *prima facie* case of obviousness. The rejection is improper and must be withdrawn.

Claim 24, which depends from Claim 23, is improperly rejected as being unpatentable over Stein et al. in view of Lindquist and further in view of Kennedy.

The addition of Kennedy does nothing to obviate the deficiency of Stein with respect to Claim 23, and thus the rejection of Claim 24 is improper.

Claims 30-33 are rejected as being unpatentable over Stein et al. (U.S. Patent No. 2003/0008663) in view of Kennedy et al. (U.S. Patent Application No. 2004/0043775) and further in view of Hymel (U.S. Patent No. 6,246,336).

The Office acknowledges that “Stein and Kennedy fail to teach disregarding a second signal.”

Regarding Claim 30, the Office has incorrectly relied on the combination of the Stein, Kennedy and Hymel to teach certain features recited in Claim 30. For instance, contrary to the Office’s position, Hymel does not disclose: “...disregarding a second signal received from the mobile appliance at each of the plural base stations when determining the location of the mobile appliance”, as recited in Claim 30.

The Hymel reference has nothing to do with geolocation. The second signal disregarded in operation 416 of FIG. 5 of Hymel is directed to a radio signal used to

transmit advertisement related messages. Nowhere does Hymel disclose disregarding a second signal for location determination. The Office has failed to establish a *prima facie* case of obviousness. The rejection must be withdrawn.

Likewise, the rejection of Claims 31-33 is improper as they depend properly from Claim 30.

Claim 34 is improperly rejected as being unpatentable over Stein et al. (U.S. Patent Publication No. 2003/0008663) in view of Bloebaum (U.S. Pat. No. 6,188,351).

The Office acknowledges that “Stein fails to clearly teach a geolocation sensor attached to the communication tether” and relies on Bloebaum to provide such a teaching.

The Office states that Bloebaum “teaches a geolocation sensor GPS (Fig. 1a) attached to a base station BTS sub 3 (Fig. 1a.)” This however is not a teaching of: “...a geolocation sensor attached to the communication tether between said base station and said repeater station”, as recited in Claim 34.

All of the Claim elements of Claim 34 have not been taught by Stein or Bloebaum. Therefore, the rejection of Claim 34 is improper and must be withdrawn.

Claim 35 is rejected as being unpatentable over Stein et al. (U.S. Patent Publication No. 2003/0008663) in view of Bloebaum (U.S. Pat. No. 6,188,351) and further in view of Kennedy et al. (U.S. Publication No. 2004/0043775).

The Office acknowledges that "Stein fails to teach a geolocation sensor located on the communication tether" and relies on Bloebaum to provide such a teaching.

The Office states that Bloebaum "teaches a geolocation sensor GPS (Fig. 1a) located on a tether prior to the interface (to a base station BTS sub 3 (Fig. 1a.))"

Bloebaum discloses a GPS attached to a base station, this is not a teaching for the GPS attached to the tether. Bloebaum discloses that GPS is used to synchronize the network and not for geolocation. Bloebaum states:

"Another element in the network shown in FIG. 1a is a GPS receiver 24 attached to each BTS 20. In terms of this invention, the main purpose of the GPS receiver 24 is to provide the BTS 20 with an accurate time reference such that the BTS 20 can relate air-interface timing to GPS time. As such, the configuration is commonly referred to as a "synchronized" network. Note that a synchronized network will provide other benefits (e.g., faster handoff) not directly related to this invention." Col. 8, ll. 51-60

Furthermore, a GPS sensor would unlikely ever be attached to a communication tether, for GPS sensors sense satellite signals not wireline signals. The rejection is improper and must be withdrawn.

Claim 37 is improperly rejected as being unpatentable over Stein in view of Kennedy 158 and Kennedy 2003/0069024.

The Office acknowledges that “Stein fails to clearly teach [the] step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system and a known time delay”. The Office then relies on Kennedy 158 to provide such a teaching.

As discussed with regards to Claim 1, Kennedy 158 does not teach this “determining” step and thus the rejection is improper and must be withdrawn.

Applicant incorporates the arguments presented in its response of 31 Dec 2007.

Applicant also provides a general rebuttal to the Office’s “Response to Arguments” chart. The Office continually states that “one cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references.” Applicant notes that where the Office is relying on a specific reference to provide a specific teaching in a combination, the presence of the specific teaching in the specific reference is a prerequisite for a *prima facie* case of obviousness. The burden is on the Office to establish a *prima facie* case and when the Applicant shows that the facts upon which the *prima facie* case of obviousness is based are incorrect, the burden falls back to the Office.

CONCLUSION

The prior art alone or in combination does not disclose the features of the Claims.

The Applicant request allowance of the application including Claims 1, 2, 4-6, 9-10, 12-21, 23-24 and 26-37.

If the Examiner has any questions relating to this response or the application in general she is respectfully requested to contact the undersigned so that prosecution may be expedited.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to **Deposit Account No. 04-1679**.

Respectfully submitted,

/mcc/

Mark C. Comtois

Reg. No. 46,285

Duane Morris, LLP
505 9th Street, NW, Suite 1000
Washington, DC 20004
Telephone: (202) 776-7800
Telecopier: (202) 776-7801
Date: June 11, 2008